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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/853,917	05/11/2001	Satyanarayan A. Srinivasan	10032	7603

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EXAMINER	
RODEE, CHRISTOPHER D	

ART UNIT	PAPER NUMBER
1756	6

DATE MAILED: 11/18/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/853,917	SRINIVASAN ET AL.	
	Examiner	Art Unit	
	Christopher D RoDee	1756	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 October 2002* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *19-47* is/are pending in the application.

4a) Of the above claim(s) *19-35* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *36-47* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☒ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Election/Restrictions

Applicant's election with traverse of Group I (now claims 36-47, by applicant's amendment) in Paper No. 5 is acknowledged. The traversal is on the ground(s) that there are only two groups present, each group does not contain a large number of claims, and each group is indicated as requiring search of a single class/subclass. This is not found persuasive because the search for the toner does not require any search of the magnetic brush development method while the method requires, at most, only a cursory search of the toner. Additionally, the dry developer composition can be used in another and materially different process as discussed in the last Office action. Applicants have not disputed the alternative use proposed by the Examiner. The number of claims is not material for the purposes of this restriction because all the product (i.e., developer) claims classify in a class/subclass different from the process and require different searches, as discussed above. The class and subclass specified for each group in the last Office action identify the corresponding original classification for each group. It does not specify the required search for each group or the classification of each claim individually. Thus the identification of a single class and subclass for each group, as discussed in MPEP 808.02, shows separate subject matter for each inventive effort and a separate field of search. Retention of each group in a single application would constitute a burden on the Office per MPEP 803.

The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 36-47 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The new independent claims specify that the dry developer is for use in the development of electrostatic latent images using a magnetic applicator having a sleeve and a magnetic core which rotate with respect to each other. The Examiner has carefully reviewed the instant specification but was unable to find basis for this limitation. The specification does disclose a method of developing electrostatic images using a magnetic brush comprising the components as specified on specification page 7, lines 3-10. The specification does not describe the developer for use in a development method using a magnetic applicator as claimed because the claimed method of use does not specify the magnetic brush and the characteristics of the core and sleeve. Parenthetically the Examiner notes that the specific language of the specification concerning the "pre-selected magnetic field strength" would be indefinite if added to the claims because it is unclear which strengths are include or excluded within the scope of "pre-selected."

The claims as presented introduce new matter into the application because there is no written description for the use now specified.

Claims 36-47 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Independent claim 36 is indefinite because it is unclear if "the electrographic process" is the development process specified earlier in the claim. There is no clear antecedent basis for the term electrographic process in the claim and electrographic process includes within its scope processes other than those that use a magnetic applicator. For example, cascade development can use magnetic carrier with toner and is an electrographic process, but such a process does not use a magnetic applicator. Clarification is requested.

In the last Office action the Examiner also held that similar limitations to those now presented in claims 36-41 concerning the change in Q/m were indefinite. It appeared, and still appears, that the relative Q/m values would vary depending on the specific process used. By one process the developer would fall within the scope of the claims but would not fall within the scope of the claims if other processes were used. In response, applicants stated that the claims recite a relative behavior over time rather than an absolute value. One of ordinary skill according to applicants would use the same test to determine Q/m over time and would be able to determine which behavior took place under any consistent testing procedure.

The Examiner recognizes applicant's efforts to resolve this issue in the recent response. However, the indefiniteness of the claims remains.

The specification paragraph spanning pages 5 and 6 provides some guidance to the meaning of the Q/m limitation. This passage states that the Q/m characteristics must be obtained for a period of at least about 10 hours, preferably at least about 40 hours. The specification discusses the developer life test (for determining Q/m) beginning in the paragraph

at the bottom of page 18. Charge per unit mass (i.e., Q/m) is measured by this test, but this test is not an electrographic process, as specified in the claims, because there is no image formed. Toner is transferred onto a metal drum, apparently in a non-patterned manner. The skilled artisan would not recognize the metal drum as an imaging member useful in an electrographic process because it would not retain an electrostatic charge. Thus the specification test for Q/m is not an electrographic process.

The specification identifies useful imaging members for electrographic processes as photoreceptors and dielectric recording medium (spec. p. 16, l. 11-13). Metal drums are conductive all along their surface while dielectric recording medium are not conductive (but may retain an electrostatic charge, such as when formed by an ionographic stylus) and photoreceptors are selectively conductive depending on where they are struck by light. The process of measuring the Q/m value in the specification is not performed in an electrographic method. The specification, therefore, does not provide guidance to the scope of the electrographic process specified. The claims are presenting a different method of measuring Q/m (by electrographic process) than that used in the specification.

With respect to applicant's remarks concerning this rejection, the Examiner recognizes that the same electrographic process would logically be used to test the Q/m value of the toner at the specified times. However, it does not appear that all electrographic processes would give the same relative values. For example, a magnetic brush that contacts an imaging member without applied bias would appear to give a different relative charge to the toner at the times measured than a non-contact process with an AC bias. The number of poles in the magnetic applicator and motion (or lack of motion) of the sleeve and poles would also affect the charging rate of the toner based on the amount of "rubbing" that occurs. If the Examiner's understanding is in error applicants are asked to provide further clarification.

Based on these factors there is not sufficient guidance in the application as filed to determine the electrographic process that permits the artisan to measure Q/m at the requisite times. The type of electrographic process would also be expected to affect the charging rate of the toner and thus the relative charge as measured at the specified times.

Similarly the rejection concerning the dust level as specified in the claims is applicable to claims 42-47. It appears that the specific process used would materially affect the amount of dust produced, which would in turn define the amount of silica particles. The guidance in the specification at the top of page 19 is noted, but the specifics of the process are not present. For example, the speed of the respective components that contact and transport the toner would be expected to affect the amount of dust produced. The artisan would expect a fast spinning sleeve in the magnetic applicator to generate more dust than a slower spinning sleeve. Guidance for the speeds of the applicator components and other components noted on page 18 that contact the toner is lacking.

The claims are indefinite for the reasons presented.

Claim Rejections - 35 USC §§ 102 & 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Desie '110 has been withdrawn as a ground of rejection based upon applicant's remarks and new claims.

Claims 36-47 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Gady *et al.* in US Patent 5,948,585 considered with *Handbook of Imaging Materials*, to Diamond pp. 182-3. Diamond is cited for its disclosure of inherent properties of carriers and toners.

Gady was described in the last Office action. In response to that rejection applicants incorporated the limitations of previous independent claim 1 and dependent claims 13 and 16 into new claims 36 and 42, respectively. Additional limitations concerning the magnetic applicator were also added, as discussed above.

Gady teaches that its developer can be used with a magnetic applicator having a sleeve and a rotating magnetic core (col. 8, l. 7-9). The intended uses of the current claims are disclosed by the reference.

Applicants traverse this rejection because the reference is not concerned with the problems of the instant invention. Specifically, the reference is not concerned with degradation of toner Q/m or toner dusting (see response pp. 6-7). Applicants also state that the reference teaches away from silica contents, which exceed about 0.7 % based on the disclosure in column 13, lines 4-16.

The Examiner has carefully considered applicant's remarks in light of the new claims. Gady specifically disclose a developer composition having the toner, silica content, and hard magnetic ferrite carrier required of the instant claims. Examples 1 and 2 present developers comprising silica in amounts between 0 and 2 weight percent. Examples 3-6 present developers with silica amounts at 0.5, 1, and 2 weight percent. See Figure 7. The disclosure of toner with the noted amounts of silica meets the requirements of the instant dependent claims

(e.g., 1 weight percent meets the requirements of *about* 1.2 weight percent; 2 weight percent meets the requirements of *about* 1.7 weight percent).

As noted above, the reference uses silica in the amounts preferred by the instant invention. Based on this disclosure and the specification teaching that the amount and BET surface area of the silica are critical to obtain the results of the invention (see Figures 1-3), there is sufficient reason to believe that the reference developers inherently have the claimed Q/m characteristic and dusting amount. This is particularly true for the reference's value of 1.0 wt. % silica, which is the same as specification Example 5.

In response to applicant's remarks the Examiner notes that the problem faced by the inventor is not material to a section 102 enquiry because the same product is being claimed as is present in the prior art. Because the same product is claimed it logically follows that the prior art product has the same characteristics as claimed. A product and its properties are inseparable.

The claiming of a new use, new function or unknown property, which is inherently present in the prior art, does not necessarily make the claim patentable. *In re Best*, 195 USPQ 430, 433 (CCPA 1977). "[T]he PTO can require an applicant to prove that the prior art products do not necessarily or inherently possess the characteristics of his [or her] claimed product. Whether the rejection is based on inherency' under 35 U.S.C. 102, on prima facie obviousness' under 35 U.S.C. 103, jointly or alternatively, the burden of proof is the same." *In re Fitzgerald*, 205 USPQ 594, 596 (CCPA 1980).

The rejection is seen as proper and is maintained because applicants have not met their burden of showing that Gady does not inherently have the characteristics claimed.

Claims 36-47 are rejected under 35 U.S.C. 102(a) and 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Srinivasan *et al.* in US Patent 6,210,851 considered with *Handbook of Imaging Materials*, to Diamond pp. 182-3. Diamond is cited for its disclosure of inherent properties of carriers and toners.

Applicants traverse this rejection for essentially those reasons given for Desie, previously applied, and Grady. The remarks concerning the lack of hard magnetic carrier particles in Desie's exemplified developers is not pertinent to this reference. Srinivasan discloses hard magnetic particles for its exemplified developers (col. 6, l. 4). The reference also uses treated silica having the requisite BET surface area in the same amounts as claimed (see Examples 7-9, 12-14, 17 and 18, which have 20 g of the hydrophobic silica per 2000 g of toner particles or 1 wt. %.). The reference is also concerned with minimizing dusting (col. 2, l. 26-39; Examples) and maintaining good charging characteristics measured as Q/m (col. 2, l. 40-58; Examples). The reference's developer appears to also have the capability to be used with a magnetic applicator because the developer has hard magnetic carrier particles, which are shown by the instant specification as being transportable by a magnetic brush system.

Based on this disclosure and the specification teaching that the amount and BET surface area of the silica are critical to obtain the results of the invention (see Figures 1-3), there is sufficient reason to believe that the reference developers inherently have the claimed Q/m characteristic and dusting amount. This is particularly true for the reference's value of 1.0 wt. % silica, which is the same as specification Example 5.

The rejection is proper and is maintained for the new claims, particularly in view of the decisions to *Best* and *Fitzgerald* cited above.

Oath/Declaration

The oath or declaration remains defective for the reasons given in the last Office action. A new oath or declaration is anticipated based upon the remarks of Counsel.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher D RoDee whose telephone number is 703 308-2465. The examiner can normally be reached on most weekdays from 6 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Huff can be reached on 703 308-2464. The fax phone numbers for the organization where this application or proceeding is assigned are 703 872-9310 for regular communications and 703 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 308-0661.

cdr
November 15, 2002

CHRISTOPHER RODEE
PRIMARY EXAMINER